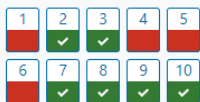


## QUIZ NAVIGATION



Show one page at a time

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Started on	Saturday, 12 October 2024, 3:12 AM
State	Finished
Completed on	Saturday, 12 October 2024, 3:17 AM
Time taken	4 mins 50 secs
Grade	6.00 out of 10.00 (60%)

## Question 1

ID: 50050

Incorrect

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RR is a 57 year old female who has recently been diagnosed with acute agitation. She brings a prescription to your pharmacy and also wants to understand how she developed this disorder since she does not feel any sort of stress, sadness or worry and she has not had any pre-existing psychiatric conditions. Before filling the prescription, you decide to take a look at her profile to see if there are any factors that may have triggered the agitation.

- Allergies: none
- Medications: clindamycin, alendronate, ranitidine, calcium, Vitamin D, Florastor probiotic
- Medical Conditions: a recent history of a bacterial infection, PUD, osteoporosis

Which of the following medications do you think could have caused acute agitation in RR?

Select one:

- ☒ Ranitidine could have caused acute agitation in RR ✓
- ☐ Clindamycin could have caused acute agitation in RR ✗
- ☒ Alendronate could have caused acute agitation in RR ✗
- ☐ Florastor probiotic could have caused acute agitation in RR ✗

Rose Wang (ID:113212) this answer is incorrect. Alendronate is used for osteoporosis in patients and it is not known to cause acute agitation.

## Incorrect

Marks for this submission: 0.00/1.00.

TOPIC: Acute Agitation

## LEARNING OBJECTIVE:

To identify potential medication related causes of agitation.

## BACKGROUND:

Acute agitation is defined as a "state of anxiety and restlessness that can be related to psychiatric or medical causes. Symptoms of acute agitation include:

- Anxiety
- Confusion
- Motor restlessness
- Tense posture

For the well-being and safety of patients and caregivers, agitated patients must be treated quickly, effectively, and safely. Risk factors for the development of acute agitation include:

- Pre-existing psychiatric conditions
- Substance abuse
- Substance withdrawal
- Social stressors
- Grief

There are many medication-related causes of acute agitation. These include adverse effects of anticholinergics, opioid use/intoxication/withdrawal, benzodiazepine withdrawal, amphetamine abuse, corticosteroids, amantadine, histamine H2-receptor blockers, dopamine or dopamine agonists. Non-drug causes of acute agitation include:

## Common Causes of Acute Agitation

Toxicologic	Neurologic	Medical	Psychiatric
<ul style="list-style-type: none"><li>• Alcohol intoxication or withdrawal</li></ul>	<ul style="list-style-type: none"><li>• Stroke</li><li>• CNS infection</li><li>• Seizure</li></ul>	<ul style="list-style-type: none"><li>• Hyperthyroidism</li><li>• Hypoglycemia</li><li>• Hypoxia</li><li>• Shock</li></ul>	<ul style="list-style-type: none"><li>• Psychosis</li><li>• Schizophrenia</li><li>• Paranoid delusions</li></ul>

- Stimulant intoxication
- Dementia
- AIDS
- Delusions
- Intracranial lesion
- Hypothermia
- Personality disorder
- Hyperthermia

#### RATIONALE:

##### Correct Answer:

- **Ranitidine could have caused acute agitation in RR** - Histamine H2 receptor blockers such as ranitidine can cause drug-related acute agitation.

##### Incorrect Answers:

- **Clindamycin could have caused acute agitation in RR** - Clindamycin is used to treat bacterial infections and it is not known to cause acute agitation.
- **Alendronate could have caused acute agitation in RR** - Alendronate is used for osteoporosis in patients and it is not known to cause acute agitation.
- **Florastor probiotic could have caused acute agitation in RR** - Florastor is used in some patients to restore normal bacterial flora and it is not known to cause acute agitation.

#### TAKEAWAY/KEY POINTS:

Histamine H2 receptor blockers are a possible medication-related cause of agitation.

#### REFERENCE:

[1] Wilson MP, Pepper D, Currier GW, Holloman GH, Feifel D. The psychopharmacology of agitation: consensus statement of the American association for emergency psychiatry project Beta psychopharmacology workgroup. West J Emerg Med. 2012;13(1):26-34. doi:10.5811/westjem.2011.9.6866.

The correct answer is: Ranitidine could have caused acute agitation in RR

#### Question 2

ID: 50056

Correct

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**TS, a 65 year old male, was admitted to the hospital and diagnosed with acute agitation. His past medical history is significant for a stroke 2 years ago as well as a knee replacement last year. He takes clopidogrel 75mg OD, Vitamin D 1000 IU OD, Glucosamine/Chondroitin 500/400mg OD and Vitamin C 500mg OD. You are asked to create a care plan for TS.**

All of the following are possible goals of therapy, **EXCEPT**:

Select one:

- ☐ Prevent patient harm ✗
- ☐ Relieve agitation ✗
- ☐ Prevent recurrence of symptoms ✗
- ☒ Create a safe environment for the agitated patient and then use stimulation therapy ✓

Rose Wang (ID:113212) this answer is correct. This is not a goal of therapy as it can worsen agitation.

#### Correct

Marks for this submission: 1.00/1.00.

**TOPIC:** Acute Agitation

#### LEARNING OBJECTIVE:

Identify goals of therapy in patients with acute agitation.

#### BACKGROUND:

Goals of therapy help guide clinicians in how to manage patients and what the outcome needs to be. Goals of therapy in acute agitation include:

- Identify the underlying cause
- Relieve agitation
- Prevent the recurrence of symptoms
- Prevent patient harm
- Prevent healthcare provider/bystander harm

These goals help clinicians to determine appropriate outcomes and care plans. Creating a safe environment for the agitated patient and then using stimulation therapy is NOT a goal of therapy for acutely agitated patients.

#### RATIONALE:

##### Correct Answer:

- **Create a safe environment for the agitated patient and then use stimulation therapy** - This is not a goal of therapy as it can worsen agitation.

**Incorrect Answers:**

- **Prevent patient harm** - Preventing patient harm is a possible goal of therapy.
- **Relieve agitation** - Relieving agitation is a possible goal of therapy.
- **Prevent recurrence of symptoms** - Preventing recurrence of symptoms is a possible goal of therapy.

**TAKEAWAY/KEY POINTS:**

Goals of therapy for acutely agitated patients include preventing bystander harm, preventing patient harm, preventing recurrence of symptoms, and relieving agitation.

**REFERENCE:**

[1] Wilson MP, Pepper D, Currier GW, Holloman GH, Feifel D. The psychopharmacology of agitation: consensus statement of the American Association for Emergency Psychiatry Project Beta psychopharmacology workgroup. West J Emerg Med. 2012;13(1):26-34. doi:10.5811/westjem.2011.9.6866.  
The correct answer is: Create a safe environment for the agitated patient and then use stimulation therapy

**Question 3**

ID: 50039

Correct

Flag question

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**Acute agitation can be associated with delirium which can stem from various causes or psychiatric disorders.**

All of the following are causes for delirium that can lead to acute agitation, **EXCEPT**:

Select one:

- ☐ Infections ✗
- ☒ Controlled pain ✓
- ☐ Seizures ✗
- ☐ Drug withdrawal ✗

*Rose Wang (ID:113212) this answer is correct. Poorly controlled pain can trigger acute agitation.*

**Correct**

Marks for this submission: 1.00/1.00.

**TOPIC:** Acute Agitation

**LEARNING OBJECTIVE:**

Identify which other factors can precipitate acute agitation.

**BACKGROUND:**

Acute agitation is defined as a psychiatric disorder in which a person is in a state of restlessness and anxiety. Acute agitation can occur with aggressive behaviour but it is not always the case. Many factors are linked to acute agitation. Factors which can potentially precipitate acute agitation include:

- Delirium
- Drug withdrawal
- Neurological conditions
- Psychiatric disorders
- Poorly controlled pain

Delirium can be caused by many things (e.g. disturbances in electrolyte levels, infections), and this can then evolve into acute agitation.

**RATIONALE:**

**Correct Answer:**

- **Controlled pain** - Poorly controlled pain can trigger acute agitation.

**Incorrect Answers:**

- **Infections** - Infections can be a cause for delirium which can lead to acute agitation.
- **Seizures** - Neurological conditions can be a cause for delirium which can lead to acute agitation.
- **Drug withdrawal** - Drug withdrawal can be a cause for delirium which can lead to acute agitation.

**TAKEAWAY/KEY POINTS:**

Many factors can precipitate acute agitation such as infections, neurological conditions, and drug withdrawal.

**REFERENCE:**

[1] Wilson MP, Pepper D, Currier GW, Holloman GH, Feifel D. The psychopharmacology of agitation: consensus statement of the American Association for Emergency Psychiatry Project Beta

**Question 4**

ID: 50060

Incorrect

Flag question

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**During your shift at the emergency department, PP, a 20 year old male patient was admitted for possible psychosis. PP's condition has been stabilized but he is now experiencing acute agitation.**

Which of the following medications would be appropriate to recommend to PP?

Select one:

- ☒ Antipsychotics ✓
- ☐ Benzodiazepines ✗
- ☐ SSRIs ✗
- ☐ Lithium ✗

*Rose Wang (ID:113212) this answer is incorrect. Benzodiazepines are not the preferred agent in agitation associated with psychosis.*

**Incorrect**

Marks for this submission: 0.00/1.00.

**TOPIC:** Acute agitation

**LEARNING OBJECTIVE:**

Identify the preferred pharmacological options in agitation associated with psychosis.

**BACKGROUND:**

Non-pharmacological therapy is the mainstay of therapy and focuses on verbal de-escalation by respecting patients' space, using simple language, speaking in a calm environment, and assuring them that they are in a safe environment.

**Pharmacological Treatment of Acute Agitation**

<b>Benzodiazepines</b>	Lorazepam, Midazolam	Preferred for agitation from CNS stimulant intoxication, alcohol withdrawal, and undifferentiated agitation (without symptoms/history of psychosis) or in violent patient
<b>First-Generation Antipsychotics</b>	Haloperidol, loxapine	Preferred for agitation with a known psychiatric disorder or CNS depressant intoxication, in violent patients or in undifferentiated agitation (with symptoms/history of psychosis)
<b>Second Generation Antipsychotics</b>	Olanzapine, risperidone, ziprasidone	Can be used for agitation with a known psychiatric disorder, in cooperative patients, in patients with undifferentiated agitation (with symptoms/history of psychosis), in patients who develop psychosis from amphetamine use. Olanzapine cannot be given with parenteral benzodiazepines. Second-generation antipsychotics have a more favourable side effect profile in acute agitation than first-generation antipsychotics.

**RATIONALE:**

**Correct Answer:**

- **Antipsychotics** - Antipsychotics are the preferred agent in agitation associated with psychosis.

**Incorrect Answers:**

- **Benzodiazepines** - Benzodiazepines are not the preferred agent in agitation associated with psychosis.
- **SSRIs** - SSRIs are not the preferred agent in agitation associated with psychosis.
- **Lithium** - Lithium is not the preferred agent in agitation associated with psychosis.

**TAKEAWAY/KEY POINTS:**

Antipsychotics are the preferred pharmacological agents in agitation associated with psychosis.

**REFERENCE:**

[1] Wilson MP, Pepper D, Currier GW, Holloman GH, Feifel D. The psychopharmacology of agitation: consensus statement of the american association for emergency psychiatry project Beta psychopharmacology workgroup. West J Emerg Med. 2012;13(1):26-34. doi:10.5811/westjem.2011.9.6866.

The correct answer is: Antipsychotics

**Question 5**

ID: 50062

**SJ, a 50 year old female, was admitted to the emergency ward and is experiencing persistent agitation. She is very uncooperative, despite attempts to verbally calm her.**



Incorrect

Flag question

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Which of the following pharmacological options is most appropriate for SJ?

Select one:

- ☒ Olanzapine immediate-acting injection ✓
- ☐ Quetiapine PO ✗
- ☐ Lithium PO ✗
- ☐ Loxapine PO ✗

Rose Wang (ID:113212) this answer is incorrect. An oral tablet is not an appropriate choice for this patient.

Incorrect

Marks for this submission: 0.00/1.00.

**TOPIC:** Acute Agitation

**LEARNING OBJECTIVE:**

Identify non-oral options for agitation.

**BACKGROUND:**

Acute agitation is a psychiatric disorder where a patient has feelings of anxiety and restlessness. Agitation presents as anxiety, confusion, tense posturing and frequently changing body positions to name a few symptoms. Non-pharmacological measures are always considered first line and should be used prior to using drug therapy when possible. The treatment options will vary slightly depending on the cause of the agitation. Sometimes if patients refuse to take oral medications and are very agitated, non-oral formulations may be necessary. In this situation, a benzodiazepine could be used as the patient is not experiencing psychoses, but this is not listed as an option.

**RATIONALE:**

**Correct Answer:**

- **Olanzapine immediate-acting injection** - An immediate-acting injection is desirable to manage the patient's symptoms when they are very uncooperative and non-pharmacological measures have failed.

**Incorrect Answers:**

- **Quetiapine PO** - An oral tablet is not an appropriate choice for this patient.
- **Lithium PO** - Lithium is not indicated for treatment of delirium.
- **Loxapine PO** - An oral tablet is not an appropriate choice for this patient.

**TAKEAWAY/KEY POINTS:**

Patients with severe agitation who are uncooperative may require non-oral formulations of drug therapy (e.g injectables).

**REFERENCE:**

[1] Wilson MP, Pepper D, Currier GW, Holloman GH, Feifel D. The psychopharmacology of agitation: consensus statement of the american association for emergency psychiatry project Beta psychopharmacology workgroup. West J Emerg Med. 2012;13(1):26-34. doi:10.5811/westjem.2011.9.6866.

The correct answer is: Olanzapine immediate-acting injection

**Question 6**

ID: 50064

Incorrect

Flag question

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All of the following options can be used for acute agitation **EXCEPT:**

Select one:

- ☒ PO Olanzapine + PO lorazepam ✗
- ☐ IM olanzapine and IM midazolam ✓
- ☐ IM olanzapine ✗
- ☐ PO Lorazepam ✗

Rose Wang (ID:113212) this answer is incorrect. The combination of an oral benzodiazepine and an oral second-generation antipsychotic is an appropriate choice for acute agitation.

Incorrect

Marks for this submission: 0.00/1.00.

**TOPIC:** Acute agitation

**LEARNING OBJECTIVE:**

To identify appropriate pharmacological options for acute agitation.

**BACKGROUND:**

Pharmacological therapy includes three main medication classes: benzodiazepines, first-generation antipsychotics and second-generation antipsychotics. When choosing a drug, consider cause of agitation, comorbidities, age and concomitant medications among other factors. Intramuscular olanzapine and parenteral benzodiazepines should not be used together given the increased risk of cardiac and respiratory complications and death.

#### RATIONALE:

##### Correct Answer:

- **IM olanzapine + IM midazolam** - This is not a safe combination to use given the risk of cardiac and respiratory complications and death.

##### Incorrect Answers:

- **PO Olanzapine + PO lorazepam** - The combination of an oral benzodiazepine and an oral second-generation antipsychotic is an appropriate choice for acute agitation.
- **IM olanzapine** - An intramuscular second-generation antipsychotic is an appropriate choice for acute agitation.
- **PO Lorazepam** - An oral benzodiazepine is an appropriate choice for acute agitation.

#### TAKEAWAY/KEY POINTS:

Antipsychotics and benzodiazepines are the most appropriate options for the pharmacological management of acute agitation. Intramuscular olanzapine and parenteral benzodiazepines should not be used together given the increased risk of cardiac and respiratory complications and death.

#### REFERENCE:

[1] Wilson MP, Pepper D, Currier GW, Holloman GH, Feifel D. The psychopharmacology of agitation: consensus statement of the American Association for Emergency Psychiatry Project Beta psychopharmacology workgroup. West J Emerg Med. 2012;13(1):26-34. doi:10.5811/westjem.2011.9.6866.

The correct answer is: IM olanzapine and IM midazolam

#### Question 7

ID: 50066

Correct

Flag question

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**The pharmacy student you are supervising is currently reviewing her notes on antipsychotics to prepare for her upcoming exam. She understands what extrapyramidal symptoms (EPS) are, but is unsure of which drugs are most likely to cause these symptoms.**

Which of the following drugs is most likely to cause extrapyramidal symptoms (EPS)?

Select one:

- ☐ Ziprasidone ✗
- ☒ Haloperidol ✓
- ☐ Quetiapine ✗
- ☐ Olanzapine ✗

Rose Wang (ID:113212) this answer is correct. First generation antipsychotics are more likely to cause EPS than second-generation antipsychotics.

#### Correct

Marks for this submission: 1.00/1.00.

**TOPIC:** Acute Agitation

#### LEARNING OBJECTIVE:

Identify which antipsychotics are most likely to cause EPS.

#### BACKGROUND:

Antipsychotics are often used in acute agitation to manage symptoms. When choosing an antipsychotic, consider cause of agitation, comorbidities, age and concomitant medications among other factors. First generation antipsychotics (e.g. haloperidol) primarily block dopamine receptors, whereas second-generation antipsychotics tend to impact other receptors as well (e.g. serotonin, alpha receptors). First generation antipsychotics are more likely to cause EPS due to their dopamine blockade when compared to second-generation antipsychotics. Second generation antipsychotics (e.g. olanzapine, ziprasidone, quetiapine) have higher incidences of metabolic disturbances (e.g glucose changes, lipid changes) than first-generation antipsychotics.

#### RATIONALE:

##### Correct Answer:

- **Haloperidol** - First generation antipsychotics are more likely to cause EPS than second-generation antipsychotics.

##### Incorrect Answers:

- **Ziprasidone** - Second generation antipsychotics are less likely to cause EPS than first-generation antipsychotics.
- **Quetiapine** - Second generation antipsychotics are less likely to cause EPS than first-generation antipsychotics.

antipsychotics.

- **Olanzapine** - Second generation antipsychotics are less likely to cause EPS than first-generation antipsychotics.

#### TAKEAWAY/KEY POINTS:

First generation antipsychotics such as haloperidol cause more EPS than second-generation antipsychotics.

#### REFERENCE:

[1] Wilson MP, Pepper D, Currier GW, Holloman GH, Feifel D. The psychopharmacology of agitation: consensus statement of the American Association for Emergency Psychiatry Project Beta psychopharmacology workgroup. West J Emerg Med. 2012;13(1):26-34. doi:10.5811/westjem.2011.9.6866.

The correct answer is: Haloperidol

#### Question 8

ID: 50046

Correct

Flag question

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**Your preceptor hands you a patient chart and asks you to read through it. As you read the detailed notes, you determine that the patient is at risk of acute agitation.**

All of the following are risk factors for acute agitation **EXCEPT**:

Select one:

- ☒ Patient feels relaxed after 1 glass of wine

*Rose Wang (ID:113212) this answer is correct. Feeling relaxed after consuming alcohol (especially 1 glass of wine) is not a risk factor for acute agitation.*

- ☐ Patient experiences grief from losing their spouse ✗
- ☐ Patient experiences stress from losing their job recently ✗
- ☐ Patient took some stimulants prior to admission ✗

**Correct**

Marks for this submission: 1.00/1.00.

**TOPIC:** Acute Agitation

#### LEARNING OBJECTIVE:

Identify risk factors for developing acute agitation

#### BACKGROUND:

Many conditions/life events/factors can contribute to the development of acute agitation. Risk factors include:

- Pre existing psychiatric conditions
- Substance abuse
- Substance withdrawal
- Social stressors
- Grief

#### RATIONALE:

##### Correct Answer:

- **Patient feels relaxed after 1 glass of wine** - Feeling relaxed after consuming alcohol (especially 1 glass of wine) is not a risk factor for acute agitation.

##### Incorrect Answers:

- **Patient experiences grief from losing their spouse** - Grief is a possible risk factor for acute agitation.
- **Patient experiences stress from losing their job recently** - Social stress is a possible risk factor for acute agitation.
- **Patient took some stimulants prior to admission** - Substance abuse is a possible risk factor for acute agitation.

#### TAKEAWAY/KEY POINTS:

Feeling relaxed after having one glass of wine is not a risk factor for developing acute agitation. The grief of losing a spouse, loss of a job (social stressor), and abuse of stimulants can all possibly cause acute agitation.

#### REFERENCE:

[1] Wilson MP, Pepper D, Currier GW, Holloman GH, Feifel D. The psychopharmacology of agitation: consensus statement of the american association for emergency psychiatry project Beta psychopharmacology workgroup. West J Emerg Med. 2012;13(1):26-34. doi:10.5811/westjem.2011.9.6866.

The correct answer is: Patient feels relaxed after 1 glass of wine

**Question 9**

ID: 50090

Correct

Flag question

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JP is an 82-year-old male who is displaying symptoms of acute agitation. JP has been assessed and there does not appear to be an underlying condition or medication causing his symptoms. JP's family has tried using verbal de-escalation techniques to help with JP's agitation but he is still very agitated. JP's past medical history is significant for GERD, heart failure, and dementia.

What is an appropriate treatment option for JP?

Select one:

- ☐ Mirtazapine ✗
- ☐ Lorazepam ✗
- ☒ Risperidone ✓
- ☐ Haloperidol ✗

Rose Wang (ID:113212) this answer is correct. Risperidone would be the best option for JP given the evidence regarding its use in treating acute agitation in individuals with dementia.

**Correct**

Marks for this submission: 1.00/1.00.

**TOPIC:** Acute Agitation**LEARNING OBJECTIVE:**

To understand the treatments of acute agitation in individuals with dementia.

**BACKGROUND:**

Non-pharmacological therapy such as verbal de-escalation is the mainstay of treatment in agitation. When that fails, pharmacological therapy may need to be tried. The three main medication classes used in agitation are benzodiazepines, first-generation antipsychotics and second-generation antipsychotics. Benzodiazepine use in the elderly can cause paradoxical worsening of delirium and agitation as well as prolonged sedation. They are generally not the first-line option in elderly patients with dementia who are also experiencing agitation. Patients with dementia who use antipsychotics are at an increased risk of cerebrovascular events and death and thus their use must be clearly indicated. Antipsychotic must be used at the lowest dose possible and titrated cautiously when necessary. Treatment duration should be limited and patients should be closely monitored for adverse effects. There is more evidence regarding the use of risperidone in patients with dementia who require an antipsychotic compared to other antipsychotics, thus risperidone is preferentially used.

**RATIONALE:****Correct Answer:**

- **Risperidone** - Risperidone would be the best option for JP given the evidence regarding its use in treating acute agitation in individuals with dementia.

**Incorrect Answers:**

- **Mirtazapine** - Mirtazapine is not used for the treatment of acute agitation in patients with dementia.
- **Lorazepam** - Benzodiazepines are not the first-choice in elderly patients with dementia and undifferentiated agitation due to their effects on cognition and possibility of prolonged sedation and worsening of symptoms of agitation and delirium.
- **Haloperidol** - First-generation antipsychotics are associated with more adverse effects such as extra-pyramidal symptoms and are not the preferred choice in patients with dementia and agitation.

**TAKEAWAY/KEY POINTS:**

Patients with dementia who have failed non-pharmacological therapy may need to try low doses of medication such as antipsychotics. Antipsychotics should be titrated cautiously and used for the shortest duration possible.

**REFERENCE:**

[1] Shenvi C, Kennedy M, Austin CA, et al. Managing Delirium and Agitation in the Older Emergency Department Patient: The ADEPT Tool. Ann Emerg Med. 2020; 75(2):136-145.

The correct answer is: Risperidone

**Question 10**

ID: 50096

Correct

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HR is a 32-year-old male who is experiencing acute agitation. HR has a past medical history significant for anxiety and has been on sertraline 100 mg and clonazepam 0.5 mg TID for the past 5 years. HR's history also includes osteoarthritis for which he takes codeine 30 mg BID PRN which helps. HR has no other past medical history and no other medications. HR hasn't been able to get to the pharmacy to refill his clonazepam prescription and so he has gone 10 days without his clonazepam.

What is a potential cause of HR's acute agitation?

Select one:

- ☐ Sertraline use ✗
- ☒ Clonazepam withdrawal ✓

Rose Wang (ID:113212) this answer is correct. Clonazepam withdrawal is a potential cause of acute agitation.



- ☐ Codeine use ✖
- ☐ Osteoarthritis ✖

**Correct**

Marks for this submission: 1.00/1.00.

**TOPIC:** Prescription calculations

**LEARNING OBJECTIVE:**

To recognize the causes of acute agitation.

**BACKGROUND:**

Acute agitation is defined as a "state of anxiety and restlessness that can be related to psychiatric or medical causes". Symptoms of acute agitation include:

- Anxiety
- Confusion
- Motor restlessness
- Tense posture

For the well-being and safety of patients and caregivers, patients must be treated quickly, effectively, and safely. Risk factors for the development of acute agitation include:

- Pre-existing psychiatric conditions
- Substance abuse
- Substance withdrawal
- Social stressors
- Grief

There are many medication-related causes of acute agitation. These include adverse effects of anticholinergics, opioid intoxication or withdrawal, benzodiazepine withdrawal, corticosteroids, amantadine, amphetamine abuse, histamine H2-blockers, dopamine or dopamine agonists. Non-drug causes of acute agitation include:

**Common Causes of Acute Agitation**

Toxicologic	Neurologic	Medical	Psychiatric
<ul style="list-style-type: none"> <li>• Alcohol intoxication or withdrawal</li> <li>• Stimulant intoxication</li> </ul>	<ul style="list-style-type: none"> <li>• Stroke</li> <li>• CNS infection</li> <li>• Seizure</li> <li>• Dementia</li> <li>• Intracranial lesion</li> </ul>	<ul style="list-style-type: none"> <li>• Hyperthyroidism</li> <li>• Hypoglycemia</li> <li>• Hypoxia</li> <li>• Shock</li> <li>• AIDS</li> <li>• Hypothermia</li> <li>• Hyperthermia</li> </ul>	<ul style="list-style-type: none"> <li>• Psychosis</li> <li>• Schizophrenia</li> <li>• Paranoid delusions</li> <li>• Personality disorder</li> </ul>

**RATIONALE:**

**Correct Answer:**

- **Clonazepam withdrawal** - Clonazepam withdrawal is a potential cause of acute agitation.

**Incorrect Answers:**

- **Sertraline use** - Sertraline use is not a potential cause of acute agitation.
- **Codeine use** - Codeine is being used at a low dose as required and is therefore unlikely to be the cause of HR's acute agitation.
- **Osteoarthritis** - Osteoarthritis is not a cause of acute agitation. Uncontrolled pain may cause agitation but HR's pain is well-controlled.

**TAKEAWAY/KEY POINTS:**

Benzodiazepine withdrawal is a potential cause of acute agitation.

**REFERENCE:**

[1] Wilson MP, Pepper D, Currier GW, Holloman GH, Feifel D. The psychopharmacology of agitation: consensus statement of the american association for emergency psychiatry project Beta psychopharmacology workgroup. West J Emerg Med. 2012;13(1):26-34. doi:10.5811/westjem.2011.9.6866.

The correct answer is Clonazepam withdrawal.



The correct answer is: Clonazepam withdrawal

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